CLAIMS

What is claimed is:

1.   A method to write servo information on a disc in a disc drive, the method comprising:

centering on a track of the disc having skew '0', sequentially writing servo information toward the track having skew '0' from an outer surface in an outer region, and sequentially writing the servo information toward the track having skew '0' from an inner surface in an inner region; and

after the writing the servo information is completed, inspecting the servo information written in a track at a predetermined distance from the track having skew '0', and determining whether the servo information is correctly written.

2.   The method as claimed in claim 1, further comprising:

if errors occur in the track at the predetermined distance from the track having skew '0', writing servo information again, and if the errors do not occur in the track at the predetermined distance from the track having skew '0', track-defect-processing tracks within the predetermined distance from the track having skew '0'.

3.   The method as claimed in claim 2, wherein the track having skew '0' is placed at an interface with a data zone, and the track-defect-processed tracks within the predetermined distance from the track having skew '0' are dispersed in two data zones.

4.   A method to write servo information on a disc in a disc drive, the method comprising:

sequentially writing servo information from a track of the disc having a least number to a track having skew '0';

after writing the servo information to the track having skew '0', moving a head to a track having the largest number;

sequentially writing the servo information from the track having a largest number to a track prior to the track having skew '0'; and

after writing all the servo information, inspecting the servo information written in a track at a predetermined distance from the track having skew '0', and determining whether the servo information is correctly written.

5.   The method as claimed in claim 4, further comprising: if errors occur in the track at the predetermined distance from the track having skew '0', writing the servo information again, and if errors do not occur in the track at the predetermined distance from the track having skew '0', track-defect-processing tracks within the predetermined distance from the track having skew '0'.

6.   The method as claimed in claim 5, further comprising:

placing the track having skew '0' at an interface with a data zone, so that the track-defect-processed tracks within the predetermined distance from the track having skew '0' are dispersed in two data zones.

7.   A method to write and inspect servo information on a disc in a disc drive, the method comprising:

writing servo information on a track of the disc;

inspecting the servo information written in the track;

if an error occurs in the track, determining whether the number of the track in which the error occurs corresponds to a track at a predetermined distance from a track having skew '0';

if the number of the track in which the error occurs corresponds to the track at the predetermined distance from the track having skew '0', writing the servo information again, and if not, track-defect-processing the track in which the error occurs; and

if all tracks have been inspected, track-defect-processing tracks within the predetermined distance from the track having skew '0.

8.   The method as claimed in claim 7, wherein the writing of the servo information comprises:

centering on the track having skew '0', sequentially writing servo information toward the track having skew '0' from an outer surface in an outer region of the disc; and

sequentially writing the servo information toward the track having skew '0' from an inner surface in an inner region of the disc.

9.   The method as claimed in claim 7, wherein the writing of the servo information comprises:

sequentially writing the servo information from a track having a least number to the track having skew '0';

after writing the servo information to the track having skew '0', moving a head to a track having a largest number; and

sequentially writing the servo information from the track having the largest number to a track prior to the track having skew '0'.

10. The method as claimed in claim 7, further comprising:

placing the track having skew '0' at an interface with a data zone, so that the track-defect-processed tracks within the predetermined distance from the track having skew '0' are dispersed in two data zones.

11. A disc drive comprising:

a disc having a surface;

a spindle motor that rotates the disc;

a transducer that writes and reads information in and from the disc;

a voice coil motor that moves the transducer; and

a controller that controls the transducer to

sequentially write servo information toward a track of the disc having skew '0' from an outer portion of the surface in an outer region of the disc,

sequentially write servo information toward the track having skew '0' from an inner portion of the surface in an inner region of the disc, and

after the writing of the servo information is completed, to inspect the servo information written in a track at a predetermined distance from the track having skew '0' and determining whether the servo information is correctly written.

12. The disc drive as claimed in claim 11, further comprising:

a software and a hardware unit that allows the controller to perform,

after writing servo information on a track and moving the transducer to a track having a smallest number, a first operation of inspecting the servo information written in the track, if an error occurs,

a second operation of determining whether the number of the track in which the error occurs corresponds to a track at a predetermined distance from the track having skew '0',

if the number of the track in which the errors occur corresponds to the track at the predetermined distance from the track having skew '0',

a third operation of writing the servo information again, and if not, track-defect-processing the track in which the error occurs and moving the transducer to a next track, and repeating the first, second, and third operations,, and

if the track in which the servo information in the first operation is inspected corresponds to a track having a largest number, a fourth operation of track-defect-processing tracks within a predetermined distance from the track having skew '0'.

13.   The disc drive as claimed in claim 12, wherein:

the track having skew '0' is placed at an interface with a data zone, so that the track-defect-processed tracks within the predetermined distance from the track having skew '0', are dispersed in two data zones.

14.   A method to write servo information on a disc drive including a disc and a writing head, the method comprising:

positioning the writing head at one of an inner portion and an outer portion of the disc;

writing servo information on sequential tracks until writing servo information on a skew zero track, in which a skew between a tangent to the skew zero track and an axis of the writing head is approximately zero;

positioning the writing head at the remaining of the inner portion and the outer portion of the disc;

writing servo information on sequential tracks until writing servo information on a track immediately preceding the skew zero track; and

inspecting the servo information on a track located a predetermined distance from the skew zero track to determine if a predetermined tolerance of the writing of the servo information was exceeded.

15.   A method to write servo information on a disc drive including a writing head and a disc with tracks, the method comprising:

defining a skew zero track as the track in which a skew between a tangent to the skew zero track and an axis of the writing head is approximately zero;

positioning the writing head at a track at one of an inner portion and an outer portion of the disc and writing servo information;

positioning the writing head on a next sequential track toward the skew zero track and writing servo information, until writing servo information on the skew zero track;

positioning the writing head at the remaining of the inner portion and the outer portion of the disc and writing servo information;

positioning the writing head on a next sequential track toward the skew zero track and writing servo information, until writing servo information on a track immediately preceding the skew zero track; and

inspecting the servo information on a track located a predetermined distance from the skew zero track to determine if a predetermined tolerance of the writing of the servo information was exceeded.

16. A method to write servo information on a disc drive including a writing head and a disc with tracks, the method comprising:

defining a skew zero track as the track in which a skew between a tangent to the skew zero track and an axis of the writing head is approximately zero;

writing servo information on sequential tracks in a first radial direction of the disc toward the skew zero track, until servo information is written on the skew zero track;

writing servo information on sequential tracks in a second radial direction of the disc, opposite the first direction, toward the skew zero track, until servo information is written on a track immediately preceding the skew zero track; and

inspecting the servo information to determine if a predetermined tolerance of the writing of the servo information was exceeded.

17. The method according to claim 16, wherein:

the writing of the servo information on the sequential tracks in the first radial direction begins at an outer portion of the disc; and

the writing of the servo information on the sequential tracks in the second radial direction begins at an inner portion of the disc.

18. The method according to claim 16, wherein:

the writing of the servo information on the sequential tracks in the first radial direction begins at an inner portion of the disc; and

the writing of the servo information on the sequential tracks in the second radial direction begins at an outer portion of the disc.

19. The method according to claim 16, wherein the inspecting the servo information to determine if the predetermined tolerance of the writing of the servo information was exceeded comprises:

inspecting the servo information on each track;

if an abnormality in the servo information is determined on a given track, determining whether the given track is located at a predetermined distance from the skew zero track;

if the given track is not located at the predetermined distance from the skew zero track, track-defect-processing the given track;

if the given track is located at the predetermined distance from the skew zero track, rewriting the servo information on each track, and inspecting the servo information on each track again; and

once all tracks are inspected and no abnormality is found on the track at the predetermined distance from the skew zero track, track-defect-processing all tracks within the predetermined distance from the skew zero track.

20. The method according to claim 19, further comprising:

defining an interface of two data zones at the skew zero track, thus distributing the track-defect processed tracks within the predetermined distance from the skew zero track in the two data zones.

21. The method according to claim 16, wherein the inspecting the servo information to determine if the predetermined tolerance of the writing of the servo information was exceeded comprises:

inspecting the servo information on a given track located at a predetermined distance from the skew zero track;

if an abnormality in the servo information is determined on the given track, rewriting the servo information on each track, and inspecting the servo information on the given track again;

repeating the inspecting and rewriting until one of no abnormality is found in the given track, and the servo information has been written a predetermined number of times; and

if no abnormality is found on the given track, track-defect-processing all tracks within the predetermined distance from the skew zero track.

22. The method according to claim 21, further comprising:

defining an interface of two data zones at the skew zero track, thus distributing the track-defect-processed tracks within the predetermined distance from the skew zero track in the two data zones.

23. A disc drive, comprising:

a reading and writing head;

a disc; and

a controller, controlling the reading and writing head to

write servo information on sequential tracks in a first radial direction of the disc toward a skew zero track until servo information is written on the skew zero track;

write servo information on sequential tracks in a second radial direction of the disc, opposite the first direction, toward the skew zero track, until servo information is written on a track immediately preceding the skew zero track, and

inspect the servo information to determine if the predetermined tolerance of the writing of the servo information was exceeded,

wherein the skew zero track is defined as the track in which a skew between a tangent to the skew zero track and an axis of the reading and writing head is approximately zero.

24. The disc drive according to claim 23, wherein controlling the reading and writing head to inspect the servo information to determine if the predetermined tolerance of the writing of the servo information was exceeded comprises:

controlling the reading and writing head to

inspect the servo information on each track;

if an abnormality in the servo information is determined on a given track, determine whether the given track is located at a predetermined distance from the skew zero track;

if the given track is not located at the predetermined distance from the skew zero track, track-defect-process the given track;

if the given track is located at the predetermined distance from the skew zero track, rewrite the servo information on each track, and inspect the servo information on each track again; and

once all tracks are inspected, track-defect-process all tracks within the predetermined distance from the skew zero track.

25.   The disc drive according to claim 24, wherein

an interface of two data zones is defined at the skew zero track, thus distributing the track-defect-processed tracks within the predetermined distance from the skew zero track in the two data zones.

26.   A computer readable medium, comprising;

a first set of instructions to define a skew zero track as a track of a disc in which a skew between a tangent to the skew zero track and an axis of a writing head is approximately zero;

a second set of instructions to write servo information on sequential tracks in a first radial direction of the disc toward the skew zero track until servo information is written on the skew zero track;

a third set of instructions to write servo information on sequential tracks in a second radial direction of the disc, opposite the first direction, toward the skew zero track, until servo information is written on a track immediately preceding the skew zero track

a fourth set of instructions to inspect the servo information to determine if the predetermined tolerance of the writing of the servo information was exceeded,.

27.   The computer readable medium according to claim 26, wherein the fourth set of instructions comprises :

a fifth set of instructions to inspect servo information on each track;

a sixth set of instructions, that, if an abnormality in the servo information is determined on a given track, determines whether the given track is located at a predetermined distance from the skew zero track;

a seventh set of instructions, that, if the given track is not located at the predetermined distance from the skew zero track, track-defect-processes the given track;

an eighth set of instructions, that, if the given track is located at the predetermined distance from the skew zero track, rewrites the servo information on each track, and inspects the servo information on each track again; and

a ninth set of instructions, that once all tracks are inspected, track-defect-processes all tracks within the predetermined distance from the skew zero track.

28.   The computer readable medium according to claim 27, further comprising:

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a tenth set of instructions to define an interface of two data zones at the skew zero track, thus distributing the track-defect-processed tracks within the predetermined distance from the skew zero track in the two data zones.

29.   A method, comprising:

determining whether an area of a hard disc contains tracks in which servo information is superimposed; and

if such an area is discovered, inspecting the tracks in the area for abnormalities in the servo information; and track-defect-processing the tracks.

30.   A method, comprising:

determining whether an abnormality occurs in servo information written in a track of a disc, at a predetermined distance from a skew zero track;

if the abnormality is discovered, rewriting the servo information on the disc; and

if the abnormality is not discovered, track-defect-processing tracks within the predetermined distance from the skew zero track.